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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/580,633	05/30/2000	Shinichi Horita	032817-003	1994
21839	7590	03/18/2004	EXAMINER	
BURNS DOANE SWECKER & MATHIS L L P			PHILIPPE, GIMS S	
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ALEXANDRIA, VA 22313-1404			PAPER NUMBER	
			2613	
			DATE MAILED: 03/18/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/580,633

Applicant(s)

HORITA, SHINICHI

Examiner

Gims S Philippe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

1. Applicant's amendment received on January 5<sup>th</sup> 2004 has been fully considered and entered but the arguments are not deemed to be persuasive.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5, 7-9, 11-15, 19-21, 23 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukui et al. (US Patent no. 5,566,280) for the same reasons as previously set forth in the last office action mailed on September 3<sup>rd</sup> 2003, paper no. 6.

**Note:** The examiner acknowledges the amendment made to the claims, however, no new prior art is required to show the additional limitation of the amended claims.

The rejection is repeated for the sake of completeness.

Regarding claims 1, 7, 12-13, 19 and 24, Fukui discloses the same apparatus for obtaining data on the three-dimensional shape (See Fukui's Abstract). The apparatus comprising a producing device for producing data on the three-dimensional shape of an object and for producing data on two-dimensional shape of the object (See Fukui's fig.

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1, item 11, col. 3, lines 10-15), a display device for displaying images based on the data produced by the producing unit (See display 18, col. 3, lines 65-67 and col. 4, lines 1-2), a viewpoint variator for changing a viewpoint of a three-dimensional image displayed on the display device (See Fukui fig. 1, item 16, and col. 3, lines 56-64), and a position changer for changing a relative positional relationship between the object and the producing device in accordance with the viewpoint change of data on the three-dimensional shape by the viewpoint variator (See Fukui fig. 1, item 19, and col. 4, lines 3-6).

As per claims 2-3, 5, 8-9, 14-15, 20-21 most of the limitations of this claim have been noted in the above rejection of claim 1. In addition, Fukui further discloses changing the relative positional relationship between the object and the producing device in synchronism with the viewpoint change of the three-dimensional image by the variator (See Fukui col. 4, lines 32-43), and after confirmation of the viewpoint change of the image by the viewpoint variator (See Fukui col. 6, lines 1-14).

As per claims 11 and 23, most of the limitations of this claim have been noted in the above rejection of claim 1 and 19. In addition, Fukui further discloses manipulation for shifting the position of the camera (See Fukui col. 6, lines 21-24).

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***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4, 10, 16, 18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukui et al. (US Patent no. 5,566,280) in view of Miramonti et al. (US Patent no. 5,864,640).

Regarding claims 4, 6, 10, 16, 18, and 22, it is noted that Fukui is silent about a rotation stage as specified in the claims.

However, Miramonti discloses an apparatus for obtaining three-dimensional shape including a rotation stage for placing the object (See Miramonti col. 7, lines 45-47).

Therefore, it is considered obvious that one skilled in the art at the time of the invention would recognize the advantage of modifying Fukui's position changer by incorporating Miramonti's rotation stage for placing the object. The motivation for performing such modification in Fukui is to keep the shading constant provided that the platform is rotated in a synchronized manner as taught by Miramonti (See Miramonti col. 5, lines 65-66).

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As per claims 6, 18, it is noted that Fukui is silent about combining pieces on the three-dimensional shape of the object inputted to make up data on the three dimensional shape on one coordinate system as specified.

However, Miramonti discloses an apparatus for obtaining three-dimensional shape including the step of combining pieces on the three-dimensional shape of the object inputted to make up data on the three dimensional shape on one coordinate system (See Miramonti col. 3, lines 15-21, col. 5, lines 21-33).

Therefore, it is considered obvious that one skilled in the art at the time of the invention would recognize the advantage of modifying Fukui's step of producing three-dimensional shape by incorporating Miramonti's apparatus for obtaining three-dimensional shape including the step of combining pieces on the three-dimensional shape of the object inputted to make up data on the three dimensional shape on one coordinate system. The motivation for performing such modification in Miramonti is to identify a trackable patch in order to determine the coordinate system of the patch as taught by Miramonti et al. (See Miramonti col. 3, lines 19-23).

### ***Response to Arguments***

6. Regarding the above claims, the applicant argues that *"nothing in Fukui shows, teaches or suggests a producing device for producing data on both two dimensional and three-dimensional shape of an object"*. The examiner respectfully disagrees because the applicant's producing device is comprised of a camera, a manipulator, and a computer (See applicant's own disclosure page 4, lines 15-17). Those items making

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the producing device are present in Fukui fig. 1, item 11, and further disclosed in col. 3, lines 10-15. In addition, the applicant notes that Fukui "appears" to disclose a system for producing 3D dynamic images. The applicant further correctly notes that the object data input enters data of each object such as shape, color, size to name a few. It is therefore, the examiner's position that the prior art meets the claimed limitations since no real difference between the prior art and the claim have been established.

The applicant further argues that "nothing in Fukui shows, teaches or suggests a display device for two and three-dimensional images based on the data produced by the production device". In response to the above argument, the examiner would like to point the applicant's attention to the display 18 of fig. 1. It should be noted that if Fukui discloses a 3D dynamic image production system with a display it is clear that such display must display the 3D image produced. In addition, in general if a display system can show a 3D image, it should be able to display a 2D image (See Fukui col. 3, lines 65-67 and col. 4, lines 1-2).

It should be noted that the limitation "*producing device for producing both a two and three-dimensional shape of an object*" is considered met by Fukui since this limitations does not claim any additional feature that would distinguish it over the prior art. While the prior art and the application might be different, the claim in the application must claim the difference. In the present case, there appear to be no difference between the

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prior art and the claimed limitation. The production device as disclosed in Fukui fig. 1, is sufficient to meet the claimed limitations.

Regarding the dependent claims 2-4, 5-6, 8-11, 14-16, and 20-23, while the applicant argues that Fukui does not teach the claimed limitations, he/she did not present any specific argument with respect to claims 2-4, 5-6, 8-11, 14-16, and 20-23. Considering the response to the arguments stated above by the examiner regarding Fukui, it is plausible to conclude that claims 2-4, 5-6, 8-11, 14-16, and 20-23 are properly rejected.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

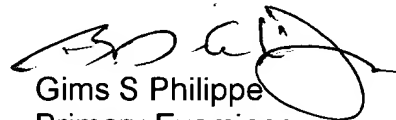
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gims S Philippe whose telephone number is (703) 305-1107. The examiner can normally be reached on M-F (9:30-7:00) Second Monday Off.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris S Kelley can be reached on (703) 305-4780. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Gims S Philippe  
Primary Examiner  
Art Unit 2613

GSP

March 17, 2004